Claims

What is claimed is:

1. A database design, which categorizes and stores any number of pieces of information, comprising
means for storing database objects as defined in the schema of the database; this schema and its operation is described as using Noun Branch, Verb Branch, Item Branch and Note;
configuration of each Branch contains objects representing Noun, Verb, Item, Note respectively; Structure objects representing many to many relationships between elements inside each Branch; Structure objects representing many to many relationships between elements of different Branches;
the specific database design puts organization and structure to the way the specific pieces of information can be stored and browsed.

2. The system of claim 1, further comprising
means to execute the database basic automatic cross-referencing algorithm closely related to the database structure;
the basic automatic cross-referencing algorithm query reads a Noun object as the specified View, takes it as the head of the Structure list and scans all the elements belonging to the list using the Structure object; the elements of the View list create the headings of columns of the result spreadsheet; then, for a specified Name with Context treated as the head of another list it reads all the elements belonging to the Name list using the Structure object and puts them in rows of the spreadsheet; then, Noun-Item Relationship Structure object is used to find out all Items belonging to the Name list elements and puts them in rows of the spreadsheet; then, all the Nouns belonging to these Items are read and if any of the these Nouns appear on the list which head is specified in the heading of columns of the spreadsheet, than such Noun is printed in the intersection cell of the Item and the heading.

3. The system of claim 2, further comprising
means in the database to store the cross-referencing Structure data based on the database design, which stores any relationships between Categories, which include Nouns and Verbs, and Items, Categories and Categories, Items and Items;
the relationships are many to many relationships and relate the basic parts of the database, namely Nouns, Verbs, Items and Notes to each other.

4. The system of claim 3, further comprising
means in the database for self-organizing and self-learning algorithms storing statistical access or other information used to reorganize access paths to specific Categories, Items and their relationships.

5. The look and feel of the user interface to the database;
means to use a spreadsheet parallel to display in rows hierarchy of Categories and Items related to these Categories;
in spreadsheet columns headings are displayed Categories which may be related to the Items through other Categories, which generally are sub-Categories of the column Categories;
in spreadsheet cells are displayed Categories which may relate the Names or Items from rows to Categories from columns; which generally are sub-Categories of the column Categories.

6. The means to implement the Name and Context Combo in the user interface to the database;
to accommodate display of different Categories or Names which may have the same Name Value, but a different meaning depending on the Context they are used in, the display includes means of viewing and manipulating Name and Context combinations.

7. A computer software program embodying a computer code for Personal Information Manager, said program comprising:
        a first subroutine for entering, viewing and editing of user's data with the spreadsheet interface;
        a second subroutine for retrieving of user's data with automatic cross-referencing of data;
        a third subroutine for system's self-learning based on statistical access or other information.